

# Gaetana Laricchia

## List of Publications by Year in descending order

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150  
papers

3,151  
citations

117625

34  
h-index

197818

49  
g-index

151  
all docs

151  
docs citations

151  
times ranked

498  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ps beam production and scattering from gaseous targets. Journal of Physics B: Atomic, Molecular and Optical Physics, 1996, 29, 5961-5968.	1.5	114
2	Positron impact ionization of atomic hydrogen. Journal of Physics B: Atomic, Molecular and Optical Physics, 1993, 26, L483-L488.	1.5	96
3	Electron-Like Scattering of Positronium. Science, 2010, 330, 789-789.	12.6	94
4	Triply Differential Study of Positron Impact Ionization of H <sub>2</sub> . Physical Review Letters, 1998, 80, 5309-5312.	7.8	89
5	Positronium-Argon Scattering. Physical Review Letters, 1996, 76, 1595-1598.	7.8	84
6	Single ionization by positron impact. Canadian Journal of Physics, 1996, 74, 367-372.	1.1	82
7	Total positron-impact ionization and positronium formation from the noble gases. Journal of Physics B: Atomic, Molecular and Optical Physics, 2002, 35, 2525-2540.	1.5	80
8	Positron impact phenomena. Journal of Physics B: Atomic, Molecular and Optical Physics, 1990, 23, 1045-1078.	1.5	77
9	Single and double ionization of neon, krypton and xenon by positron impact. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, 3933-3949.	1.5	71
10	Positron and electron impact double ionisation of helium. Journal of Physics B: Atomic, Molecular and Optical Physics, 1988, 21, L545-L549.	1.5	64
11	Positronium beam scattering from atoms and molecules. Nuclear Instruments & Methods in Physics Research B, 1998, 143, 155-161.	1.4	59
12	Fragmentation of Positronium in Collision with He Atoms. Physical Review Letters, 2002, 89, 173402.	7.8	59
13	Near-Threshold Ionization of He and H <sub>2</sub> by Positron Impact. Physical Review Letters, 1996, 77, 1250-1253.	7.8	58
14	Antihydrogen synthesis by the reaction of antiprotons with excited state positronium atoms. Hyperfine Interactions, 1993, 76, 151-161.	0.5	56
15	Ionizing Collisions by Positrons and Positronium Impact on the Inert Atoms. Advances in Atomic, Molecular and Optical Physics, 2008, 56, 1-47.	2.3	54
16	Semiempirical Approach to Positron Annihilation in Molecules. Physical Review Letters, 1997, 79, 2241-2244.	7.8	48
17	Antihydrogen Production by Positronium-Antiproton Collisions in an Ion Trap. Physica Scripta, 1988, T22, 248-255.	2.5	46
18	The effect of forward-angle scattering on positronium-gas total cross sections. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 1149-1157.	1.5	46

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19	Threshold effects in positron scattering on noble gases. <i>Physical Review A</i> , 1994, 50, 3129-3133.	2.5	44
20	Resonant Scattering of Positronium in Collision with CO <sub>2</sub> . <i>Physical Review Letters</i> , 2010, 105, 263401.	7.8	43
21	Positron-impact ionization and positronium formation from helium. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2005, 38, 3857-3866.	1.5	42
22	Energy-Sharing Asymmetries in Ionization by Positron Impact. <i>Physical Review Letters</i> , 2005, 95, 223202.	7.8	42
23	Ionization by positrons and electrons of Ar at zero degrees. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1993, 26, L575-L580.	1.5	41
24	Doubly differential cross sections for collisions of 100 eV positrons and electrons with argon atoms. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1994, 27, 2409-2416.	1.5	40
25	Ejected-electron energy spectra in low energy positron-argon collisions. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1992, 25, L613-L619.	1.5	39
26	Triply differential ionization cross-section of H <sub>2</sub> by 50 eV impact-energy positrons. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2001, 34, L219-L222.	1.5	39
27	Ionization of rare gases by particle - antiparticle impact. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1997, 30, L581-L587.	1.5	38
28	Excited-State Positronium Formation from Helium, Argon, and Xenon. <i>Physical Review Letters</i> , 2009, 102, 133202.	7.8	38
29	Excited state positronium formation in low density gases. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1985, 109, 97-100.	2.1	37
30	Near threshold effects in positron-O <sub>2</sub> scattering. <i>Physical Review Letters</i> , 1993, 70, 3229-3230.	7.8	37
31	Double ionisation of noble gases by positron and electron impact. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1989, 22, 2779-2788.	1.5	36
32	Measurements of low-energy e <sup>+</sup> -Ne and e <sup>+</sup> -Ar total scattering cross sections. <i>Journal of Physics B: Atomic and Molecular Physics</i> , 1984, 17, 4945-4951.	1.6	35
33	The production of collimated beams of o-Ps atoms using charge exchange in positron-gas collisions. <i>Journal of Physics B: Atomic and Molecular Physics</i> , 1987, 20, L99-L105.	1.6	35
34	Diagnostics of a positronium beam. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1991, 24, 4661-4670.	1.5	34
35	Positronium Production and Scattering below Its Breakup Threshold. <i>Physical Review Letters</i> , 2015, 115, 223201.	7.8	34
36	Experimentation with thin single crystal W foils as slow positron transmission mode moderators. <i>Applied Physics A: Solids and Surfaces</i> , 1988, 47, 409-412.	1.4	33

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37	The production of a timed tunable beam of positronium atoms. Journal of Physics E: Scientific Instruments, 1988, 21, 886-888.	0.7	33
38	Positronium-beam production and positronium scattering from molecular hydrogen. Canadian Journal of Physics, 1996, 74, 518-520.	1.1	33
39	Positronium- and positronium-H <sub>2</sub> O total cross sections. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 1337-1344.	1.5	33
40	Total ionization cross sections of He, H <sub>2</sub> and Ar by positron impact. Journal of Physics B: Atomic, Molecular and Optical Physics, 1993, 26, L367-L372.	1.5	32
41	Double-differential cross sections for collisions of positrons with argon atoms. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, L507-L512.	1.5	31
42	Ionization of CO <sub>2</sub> by positron impact. Physics Letters, Section A: General, Atomic and Solid State Physics, 1993, 174, 255-257.	2.1	30
43	Positronium induced collisions. Nuclear Instruments & Methods in Physics Research B, 2004, 221, 60-68.	1.4	30
44	Antihydrogen by positronium-antiproton collisions. Hyperfine Interactions, 1989, 44, 271-286.	0.5	28
45	Ionization of He, Ar and H <sub>2</sub> by positron impact at intermediate energies. Journal of Physics B: Atomic, Molecular and Optical Physics, 1995, 28, 1331-1347.	1.5	28
46	Threshold and channel-coupling effects in positron elastic scattering from noble gases. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, 2221-2238.	1.5	28
47	The effect of laser annealing of thin W(100) films on positron transmission reemission properties. Journal of Applied Physics, 1990, 67, 575-577.	2.5	25
48	Rare gas solid moderator for Ps beam at UCL. Nuclear Instruments & Methods in Physics Research B, 2000, 171, 172-177.	1.4	25
49	Positron and positronium collisions. Nuclear Instruments & Methods in Physics Research B, 1995, 99, 363-367.	1.4	24
50	Double ionization of noble gases by positron impact. Physical Review A, 1999, 60, 2940-2943.	2.5	24
51	Density dependence of positron annihilation and positronium formation in H <sub>2</sub> gas at temperatures between 77 and 297 K. Journal of Physics B: Atomic and Molecular Physics, 1987, 20, 1865-1874.	1.6	23
52	Antihydrogen production and precision experiments. Nuclear Physics, Section B, Proceedings Supplements, 1997, 56, 336-348.	0.4	23
53	Roadmap on photonic, electronic and atomic collision physics: II. Electron and antimatter interactions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 171002.	1.5	22
54	Production of collimated positronium from molecular nitrogen. Journal of Physics B: Atomic, Molecular and Optical Physics, 2002, 35, 4819-4827.	1.5	21

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55	The production of low energy positrons and positronium. <i>Hyperfine Interactions</i> , 1993, 76, 95-113.	0.5	19
56	Positronium beam technology. <i>Hyperfine Interactions</i> , 1994, 89, 243-249.	0.5	19
57	On the annihilation of positrons in binary encounters with molecules. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1998, 143, 135-139.	1.4	18
58	Empirical scaling of positron- and electron-impact ionization cross sections. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2002, 35, 4059-4067.	1.5	18
59	Fragmentation of positronium in collision with xenon. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2008, 266, 497-501.	1.4	18
60	Absolute Differential Positronium-Formation Cross Sections. <i>Physical Review Letters</i> , 2015, 115, 033401.	7.8	18
61	On the normalization of the positron-impact direct ionization cross-section in the noble gases. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2002, 192, 220-224.	1.4	17
62	On the Energy Dependence of Annihilation Cross-Sections for Positrons in Collision with Atoms and Molecules. <i>Physica Scripta</i> , 2005, 71, C9-C13.	2.5	17
63	Observation of simultaneous positronium formation and excitation in positron-CO <sub>2</sub> scattering. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1988, 21, L227-L232.	1.5	16
64	Single-crystal nickel foils as positron transmission-mode moderators. <i>Journal Physics D: Applied Physics</i> , 1989, 22, 868-870.	2.8	16
65	Thermal activation of positronium from thin Ag(100) films in backscattering and transmission geometries. <i>Journal of Physics Condensed Matter</i> , 1991, 3, 2849-2858.	1.8	16
66	Collisions involving positronium. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2006, 247, 98-104.	1.4	16
67	Ionization and fragmentation of CCl <sub>2</sub> F <sub>2</sub> , CClF <sub>3</sub> , CF <sub>4</sub> , and CHF <sub>3</sub> by positron impact. <i>Physical Review A</i> , 2000, 62, .	2.5	15
68	Simultaneous Ionization and Excitation of Molecules by Positron Impact. <i>Physical Review Letters</i> , 2010, 104, 073201.	7.8	15
69	Of atomic collisions with positrons and positronium. <i>Hyperfine Interactions</i> , 1996, 100, 71-89.	0.5	14
70	Positron and positronium interactions with atoms and molecules. <i>Radiation Physics and Chemistry</i> , 2003, 68, 21-31.	2.8	14
71	Positronium formation from CO <sub>2</sub> and H <sub>2</sub> O. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2006, 247, 92-97.	1.4	14
72	On the formation of excited state positronium in vacuum by positron impact on untreated surfaces. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2001, 34, 3617-3628.	1.5	13

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73	Antihydrogen production and precision experiments. The ATHENA collaboration. , 1997, 109, 1-32.		12
74	Positronium formation cross-sections for Xe, CO <sub>2</sub> and N <sub>2</sub> . Journal of Physics: Conference Series, 2010, 199, 012006.	0.4	12
75	Progress towards a positron reaction microscope. Journal of Physics: Conference Series, 2010, 199, 012025.	0.4	12
76	Electron ejection from ionising positronium atom collisions. Nuclear Instruments & Methods in Physics Research B, 1998, 143, 100-104.	1.4	11
77	Fragmentation and ionization of CH <sub>3</sub> F by positron and electron impact. Nuclear Instruments & Methods in Physics Research B, 1998, 143, 112-120.	1.4	11
78	Energy dependence of the total ionization and positronium formation cross-sections in e <sup>+</sup> -Xe collisions. Nuclear Instruments & Methods in Physics Research B, 2002, 192, 215-219.	1.4	11
79	Ion production by positron impact on H <sub>2</sub> O. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 065205.	1.5	11
80	Collimated positronium production from gases. European Physical Journal D, 2014, 68, 1.	1.3	11
81	High-Resolution Measurements of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> \langle \text{mml:mrow} \langle \text{mml:msup} \langle \text{mml:mrow} \langle \text{mml:mi} \rangle \text{e} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \langle \text{mml:mo} \rangle + \langle \text{mml:mo} \rangle \langle \text{mml:mathvariant="normal"} \rangle \text{H} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \langle \text{mml:msub} \langle \text{mml:mi} \rangle \text{O} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \langle \text{mml:mrow} \langle \text{mml:math} \rangle \text{Total Cross Section. Physical Review Letters, 2016, 117, 253401.}$	1.5	11
82	Resonant scattering of positronium as a quasifree electron. Physical Review A, 2017, 95, .	2.5	11
83	A parallel-plate analyser with time focusing. Measurement Science and Technology, 2001, 12, 1875-1880.	2.6	10
84	Investigation into the energy dependence of the annihilation cross-sections for Ne and Xe below the positronium formation threshold. Nuclear Instruments & Methods in Physics Research B, 2004, 221, 100-106.	1.4	10
85	Direct non-dissociative and dissociative ionization of CO <sub>2</sub> by positron impact. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 466-470.	1.4	10
86	Differential ionization studies by positron impact. Journal of Physics: Conference Series, 2010, 199, 012020.	0.4	10
87	Magnetic field-free measurements of the total cross section for positrons scattering from helium and krypton. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 075202.	1.5	10
88	Positron - argon elastic, positronium formation and ionizing collisions at. Journal of Physics B: Atomic, Molecular and Optical Physics, 1996, 29, L667-L672.	1.5	9
89	Collisions involving antiparticles. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 1999, 357, 1259-1277.	3.4	9
90	Correlations between cross sections and threshold energies for positronium formation. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, L669-L676.	1.5	9

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91	Ionization in positron- and positronium- collisions with atoms and molecules. Journal of Physics: Conference Series, 2009, 194, 012036.	0.4	9
92	Production of collimated positronium by positron scattering from CO <sub>2</sub> , N <sub>2</sub> and Xe. European Physical Journal D, 2012, 66, 1.	1.3	9
93	Measurement of the positronium formation potential for Ag(100). Journal of Physics Condensed Matter, 1993, 5, 5209-5214.	1.8	8
94	Near threshold effects in positron-atom (molecule) scattering. Hyperfine Interactions, 1994, 89, 209-218.	0.5	8
95	Positronium formation from Ar and Xe. Nuclear Instruments & Methods in Physics Research B, 2004, 221, 107-111.	1.4	8
96	An electrostatic brightness-enhanced timed positron beam for atomic collision experiments. Measurement Science and Technology, 2014, 25, 075013.	2.6	8
97	Moderation and diffusion of positrons in tungsten meshes and foils. Journal of Applied Physics, 2015, 118, 105302.	2.5	8
98	Angle-Resolved Electron Scattering from $H_2O$ near $0^\circ$ . Physical Review Letters, 2019, 123, 033401.	7.8	8
99	Positron scattering on atoms and molecules near the positronium threshold. Canadian Journal of Physics, 1996, 74, 427-433.	1.1	7
100	Electron-capture-to-the-continuum by positron impact. Nuclear Instruments & Methods in Physics Research B, 2000, 171, 103-105.	1.4	7
101	Positronium scattering from atoms and molecules. Nuclear Instruments & Methods in Physics Research B, 2002, 192, 67-73.	1.4	7
102	Production and scattering of a positronium beam. Nuclear Instruments & Methods in Physics Research B, 2005, 233, 88-94.	1.4	7
103	Correlations between ionization cross sections and threshold energies in electron-, positron-, proton- and antiproton-atom collisions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2001, 34, L271-L279.	1.5	6
104	Electron-like and resonant scattering of positronium. Journal of Physics: Conference Series, 2012, 388, 012018.	0.4	6
105	Ionization cross-sections for positron collisions with N <sub>2</sub> . European Physical Journal D, 2014, 68, 1.	1.3	6
106	Comment on the density and electric-field dependence of the positronium fraction in gaseous methane. Journal of Physics B: Atomic and Molecular Physics, 1986, 19, L111-L114.	1.6	5
107	Positronium Beam Production by Positron-Gas Interactions. Solid State Phenomena, 1992, 28-29, 347-364.	0.3	5
108	Double-differential ionization cross-section for H <sub>2</sub> O. Radiation Physics and Chemistry, 2007, 76, 431-435.	2.8	5

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109	A statistical description of scattering at the quantum level. Scientific Reports, 2018, 8, 15056.	3.3	5
110	ATOMIC AND MOLECULAR PHYSICS WITH POSITRONS AND POSITRONIUM. , 2000, , 41-95.		5
111	Implantation and Diffusion in Thin Films. Materials Science Forum, 1992, 105-110, 1431-1434.	0.3	4
112	Of Positron Scattering and Annihilation from Molecules. Materials Science Forum, 1997, 255-257, 228-232.	0.3	4
113	Fragmentation in positronium collisions with atoms. Journal of Physics: Conference Series, 2010, 199, 012001.	0.4	4
114	Differential positronium-formation cross sections for Ne, Ar, Kr, and Xe. Physical Review A, 2019, 100, .	2.5	4
115	A new timed slow positron beam. Measurement Science and Technology, 1991, 2, 175-177.	2.6	3
116	An Electrostatic System for Investigating Positron - Atom Collisions. Materials Science Forum, 1992, 105-110, 1919-1922.	0.3	3
117	Positronium formation from silver. Hyperfine Interactions, 1993, 76, 309-317.	0.5	3
118	The ORELA positron-scattering program: Progress in the first energy-analysis experiments. Canadian Journal of Physics, 1996, 74, 497-500.	1.1	3
119	Fragmentation of CH <sub>3</sub> F by Positron Impact. Materials Science Forum, 1997, 255-257, 272-274.	0.3	3
120	Positron impact ionisation of atoms. Nuclear Instruments & Methods in Physics Research B, 1998, 143, 94-99.	1.4	3
121	Low-energy positron-argon elastic scattering at 30Å°. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, L693-L696.	1.5	3
122	Correlations between cross sections and threshold energies for positronium formation and direct ionization. Nuclear Instruments & Methods in Physics Research B, 2002, 192, 44-53.	1.4	3
123	On the XIIIth International Workshop on low-energy+and Ps physics. Physica Scripta, 2006, 74, C37-C45.	2.5	3
124	On the Production of a Timed Positronium Beam by Positron-Gas Scattering. NATO ASI Series Series B: Physics, 1987, , 223-231.	0.2	3
125	Crossed beam measurement of binding energies of positronium compounds : a preliminary study. European Physical Journal Special Topics, 1993, 03, 61-67.	0.2	3
126	Crossed beam measurement of binding energies of positronium compounds: A proposal. Hyperfine Interactions, 1994, 89, 355-369.	0.5	2

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127	Differential cross-section measurements in positron-argon collisions. Canadian Journal of Physics, 1996, 74, 505-508.	1.1	2
128	An electrostatic beam for positron-gas scattering measurements. Nuclear Instruments & Methods in Physics Research B, 1998, 143, 184-187.	1.4	2
129	Electron ejection by positron impact ionization. Nuclear Instruments & Methods in Physics Research B, 2002, 192, 167-170.	1.4	2
130	Differential ionization experiments on positron-atom scattering. Nuclear Instruments & Methods in Physics Research B, 2004, 221, 56-59.	1.4	2
131	Positronium Formation and Scattering from Biologically Relevant Molecules. Biological and Medical Physics Series, 2012, , 143-153.	0.4	2
132	Experimental aspects of ionization studies by positron and positronium impact. , 0, , 116-136.		2
133	Studies with Polarized Positrons. , 1995, , 169-176.		2
134	New Results in Atomic Physics with Positrons. Materials Science Forum, 1992, 105-110, 349-358.	0.3	1
135	Progress in positron scattering from atoms and molecules. AIP Conference Proceedings, 1993, , .	0.4	1
136	Near-threshold ionization by positron impact. Hyperfine Interactions, 1994, 89, 389-394.	0.5	1
137	Fragmentation and ionization of CH <sub>3</sub> Cl by positron impact. Applied Surface Science, 1999, 149, 244-247.	6.1	1
138	Low energy positron-induced ionization of He and Ne. Nuclear Instruments & Methods in Physics Research B, 2005, 229, 51-54.	1.4	1
139	Positronium formation with excitation. Journal of Physics: Conference Series, 2012, 388, 072025.	0.4	1
140	Positronium beam production and scattering at low energies. Journal of Physics: Conference Series, 2015, 635, 052069.	0.4	1
141	Low Energy Positron Transmission Measurement from Thin Single-Crystal W Foil. NATO ASI Series Series B: Physics, 1987, , 451-452.	0.2	1
142	Inelastic Positron Collisions in Gases. NATO ASI Series Series B: Physics, 1987, , 15-25.	0.2	1
143	Positronium interactions in atomic physics. Hyperfine Interactions, 1994, 84, 355-363.	0.5	0
144	Differential ionization studies at forward angles. Hyperfine Interactions, 1994, 89, 129-131.	0.5	0

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145	A gated positron beam incorporating a scattering cell and novel ion extractor. Applied Surface Science, 1995, 85, 118-123.	6.1	0
146	From Positron to Positronium Scattering. , 2002, , 171-182.		0
147	The production of positronium and its resonant scattering. Journal of Physics: Conference Series, 2012, 388, 072031.	0.4	0
148	An electrostatic positron beam for atomic and molecular collision experiments. Journal of Physics: Conference Series, 2015, 635, 052070.	0.4	0
149	Correlations between Cross Sections and Threshold Energies for Positronium Formation and Direct Ionization. , 2001, , 303-322.		0
150	Positron and Positronium Collisions. , 1999, , 245-249.		0